Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **14CS2045** | **Duration :** | **3hrs** |
| **Sub. Name :** | **SYSTEM SOFTWARE** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Why most system software are machine dependent. Analze and justify your answer. | CO1 | 5 |
| b. | Explain the SIC machine architecture and compare with SIC/XE machine architecture. | CO2 | 15 |
| (OR) | | | | |
| 2. | a. | Write a sequence of instructions for SIC to set: ALPHA= BETA+INC – 1.  GAMMA= DELTA +INC – 1.  Modify the same code that could be performed on SIC/XE machine. | CO2 | 10 |
| b. | Discuss in detail about any one RISC Architecture. | CO2 | 10 |
| 3. | a. | Compare and contrast one pass, two pass and multi pass assembler. | CO1 | 10 |
|  | b. | Explain the pseudo code for two pass assembler with their data structures. | CO3 | 10 |
| (OR) | | | | |
| 4. |  | Explain in detail the machine independent features of an assembler. | CO3 | 20 |
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| 5. | a. | Sketch and Explain the algorithm and data structures of two pass loader with an example of control sections. | CO3 | 16 |
|  | b. | List the advantages of Dynamic linking. | CO3 | 4 |
| (OR) | | | | |
| 6. | a. | Analyze which loader produces linked version of the program before loading? Justify your answer | CO1 | 10 |
|  | b. | Demonstrate the algorithm for bootstrap loader with an example | CO1 | 10 |
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| 7. |  | Write short notes on the following with suitable examples   1. Generation of unique labels. 2. Compare positional macro parameters with keyword macro parameters. 3. Nested macro. | CO3,CO1 | 10+5+5 |
| (OR) | | | | |
| 8. |  | Write the algorithm to show the working principle of one pass macro processor. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Explain about the Debugging systems and functions with its capabilities. | CO1 | 20 |

ALL THE BEST